### **IEEE P802.11Wireless LANs**

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| Spec Text for Single Channel MC-OOK On and Off Waveform Generators |
| Date: 2018-05-08 |
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**Abstract**

This document contains text to be adopted in Draft 0.3 on the Single Channel MC-OOK On and Off Waveform Generators.

**Discussion**

This document provides text for the MC-OOK On and Off Waveform Generators.

**Motion**

Move to adopt the text in IEEE 802.11-18/0967r0 into Draft 0.3.

Moved: Steve Shellhammer

Second: Rui Yang

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***Instructions to 802.11ba Editor.***

*Insert this new subclause, between 32.3.4.5 and 32.3.4.6.*

**32.3.4.6 MC-OOK On and Off Waveform Generators**

For a single 20-MHz WUR channel the 4 µs MC-OOK On symbol can be constructed by the On-Waveform Generator (On-WG) using a 64-point IFFT, sampling at 20-MHz as follows:

* Thirteen subcarriers are used, (-6, -5, … -1, 0, 1, 2, … 6).
* The DC subcarrier is null.
* The other subcarriers are selected from any of the following constellations: BPSK, QPSK, 16-QAM, 64-QAM, and 256-QAM.
* The last 16 values of the 64-point IFFT output are prepended to the 64 samples generating 80 samples, representing the 4 µs MC-OOK On symbol.

For a single 20-MHz WUR channel the 4 µs MC-OOK Off symbol can be constructed by the Off-Waveform Generator (Off-WG) as zero for 4 µs.

For a single 20-MHz WUR channel the 2 µs MC-OOK On symbol can be constructed by the On-Waveform Generator (On-WG) using a 64-point IFFT, sampling at 20-MHz as follows:

* Thirteen subcarriers are used, (-6, -5, … -1, 0, 1, 2, … 6).
* The following subcarriers are null: (-5, -3, -1, 0, 1, 3, 5).
* The other subcarriers are selected from any of the following constellations: BPSK, QPSK, 16-QAM, 64-QAM, and 256-QAM.
* The first 32 values of the 64-point IFFT output are selected. The last 8 samples of those 32 samples are prepended to the 32 samples generating 40 samples, representing the MC-OOK 2 µs On symbol.

For a single 20-MHz WUR channel the 2 µs MC-OOK Off symbol can be constructed by the Off-Waveform Generator (Off-WG) as zero for 2 µs.